

beginning of last third. Legs black, the anterior and middle knees and anterior tibiæ in front pallid; hind tibiæ and tarsi with dark fuscous hair on outer side and shining pale yellowish on inner; hind spur with two lamelliform teeth, the first very large. Abdomen honey-colour, with transverse black bands across middle of segments, that on first sometimes incomplete, the first also with two dusky spots anteriorly and a dark mark on each side; apical part of segments 2 to 4 with appressed orange hair; caudal rima yellowish, but black hair on each side of it.

Palcazu, Peru (from Rosenberg). U.S. National Museum.

Related to *A. vulpicolor*, Crawford, but the abdomen is quite differently coloured and the base of metathorax is much more coarsely sculptured.

*Agapostemon tyleri*, sp. n.

Almost exactly like *A. viridulus*, Fabr., in nearly all characters, and running to that in published tables, but distinct in the following characters:—

♀ (type).—Tegulæ black, with a yellow mark in front; scutellum finely and closely punctured all over; base of metathorax behind sides of enclosure without distinct grooves or striæ directed meso-caudad.

♂.—Tegulæ chestnut-red, with a yellow spot; yellow band on first abdominal segment broadly interrupted; hind femora and tibiæ on upper (inner) side broadly banded with black for their whole length; anterior tibiæ mainly black behind.

San Juan Allende, Mexico, Nov. 29 (*C. H. T. Townsend*). U.S. National Museum.

XXVI.—*Notes on the Braconidæ in the British Museum.*—I.

By ROWLAND E. TURNER, F.Z.S., F.E.S.

Subfamily BRACONINÆ.

*Chaoilta decorata*, Szép.

*Blastomorpha decorata*, Szép. Term. Füzetek, xxiii. p. 50 (1900).

*Chaoilta decorata*, Szép. Wytzman's Genera Insect. xxii. p. 17 (1904).

This species was originally described from Dutch New Guinea. I took a specimen at Cooktown in November 1904.

## Genus CRATOBRACON, Cam.

*Cratobracon*, Cam. Proc. Zool. Soc. London, p. 226 (1901).

*Hybothorax*, Szép. Ann. Mus. Nat. Hungar. iv. p. 556 (1906) (nec (Ratsb.)).

Szépligeti places Cameron's genus in the Doryctinæ, merely quoting Cameron's description, not having seen the type. I have recently examined the type-specimen of *C. ruficeps*, Cam., and find that it is congeneric with *Hybothorax caudatus*, Szép.

*Ceratobracon caudatus*, Szép.

*Iphiaulax caudatus*, Szép. Termes. Füzetek. xxiv. p. 375 (1901). ♀.

*Iphiaulax reticulatus*, Cam. Jouru. Straits Br. Roy. Asiat. Soc. xxxix. p. 105 (1903). ♀.

*Hybothorax caudatus*, Szép. Ann. Mus. Nat. Hungar. iv. p. 556 (1906). ♀.

Szépligeti places his genus *Hybothorax* in the Braconinæ, and does not notice that the nervulus is not interstitial with the basal nervure, but received distinctly beyond it, according to which character the genus should be placed in the Exothecinæ according to his own tables. I do not think that a character which is so variable in degree can be used as the sole character for a subfamily, and therefore retain the genus in the Braconinæ. Cameron states that the transverse basal nervure is interstitial, but this is incorrect.

*Ipobracon insidiator*, Fabr.

*Ichneumon insidiator*, Fabr. Spec. Insect. i. p. 429 (1781).

*Bracon insidiator*, Fabr. Syst. Piez. p. 108 (1804).

*Iphiaulax speciosissimus*, Szép. Ann. Mus. Nat. Hungar. iii. p. 31 (1905).

*Ipobracon speciosissimus*, Szép. Ann. Mus. Nat. Hungar. iv. p. 562 (1906).

*Hab.* Sierra Leone ; Ashanti.

The type is in the Banksian collection. Dalla Torre gives the locality erroneously as Europe.

*Bathyaulax plumosus*, Kirby.

*Bracon plumosus*, W. F. Kirby, Ann. & Mag. Nat. Hist. (6) xviii. p. 262 (1896).

*Iphiaulax cristatus*, Szép. Ann. Mus. Nat. Hungar. iii. p. 30 (1905).

*Bathyaulax cristatus*, Szép. Ann. Mus. Nat. Hungar. iv. p. 559 (1906).

*Iphiaulax fastidiator*, Fabr.

*Ichneumon fastidiator*, Fabr. Spec. Insect. p. 428 (1781).

*Bracon fastidiator*, Fabr. Syst. Piez. p. 105 (1804).

*Bracon corallinus*, Rits. Tijdschr. v. Entom. xvii. p. 179 (1874).

The type in the Banksian collection is headless, but the description gives the head as red with a black mark on the vertex. Dalla Torre is probably correct in giving *coccineus*, Brullé, as a synonym, but I am not sure that the North-African form identified by Marshall as *fastidiator* is really this species. Specimens in the British Museum are from the Gambia and Sierra Leone, from the latter of which localities some of the African species in the Banksian collection seem to have been received.

*Iphiaulax plurimacula*, Brullé.

*Bracon plurimacula*, Brullé, Hist. Nat. Insect. Hymen. iv. p. 429 (1846).

*Iphiaulax coccineomaculatus*, Cam. Ann. S. Afric. Mus. v. p. 46 (1906).

*Iphiaulax permutans*, sp. n.

♀. Fusco-rufa; capite flavo, antennis, pedibus, terebraque nigris; alis nigris, dimidio apicali flavo late bivittatis; stigmatе flavo, apice extremo nigro.

Long. 13, terebra 9 mm.

♀. Front below the antennæ punctured-rugulose, with a small, smooth, semicircular area above the clypeus. Antennæ as long as the whole insect, the scape less than twice as long as broad; hind margin of the head widely emarginate. Thorax smooth, the parapsidal furrows distinct. First tergite as broad at the apex as long; the elevated median portion longitudinally striated, with a strong median carina; second tergite transverse, more than twice as broad at the apex as long, longitudinally striate, with three small smooth spaces on the anterior margin, but without a raised basal area. Third and fourth tergites longitudinally striate-rugose, the anterior angles raised and smooth, the remaining tergites smooth. Recurrent nervure received a little before the first transverse cubital nervure; cubitus sharply bent near the base.

*Hab.* Nyasaland, Mlanje (*S. A. Neave*), November to January.

This is very near *I. calopterus*, Szép. (*Sjöstedt*, Kilimandjaro-Meru Exp. ii. p. 33). and will probably prove to be a subspecies; but in that insect the fourth tergite is smooth and the sculpture of the third tergite confined to the middle. The two yellow bands of the fore wing are united in *calopterus*, but in some specimens of *permutans* the black area between the yellow bands is more or less broadly interrupted.

*Iphiaulax grenadensis*, Ashm.

*Iphiaulax grenadensis*, Ashm. Trans. Ent. Soc. London, p. 294 (1900).

♀ ♂.

*Iphiaulax harperi*, Cam. Trans. Amer. Ent. Soc. xxxi. p. 383 (1905).

♀.

*Iphiaulax medianus*, Cam. Journ. Roy. Agric. Soc. Demerara, i. p. 310 (1911) (nec Szép. 1901). ♀.

*Iphiaulax villosus*, Cam. Journ. Roy. Agric. Soc. Demerara, i. p. 310 (1911). ♂.

This has considerable economic importance as a parasite on the larva of the moth *Diatraea saccharalis*, the well-known sugar-cane pest.

The type-specimens of all the above-quoted names are in the British Museum.

Subfamily *EXOTHECINÆ*.*Spinaria alicie*, sp. n.

♀. Rufo-ferruginea; abdomine pallide flavo; flagello, macula inter ocellos, segmentis dorsalibus primo secundoque in medio latissime, tertio quartoque omnino spinis lateralibus exceptis, unguiculis anticis, tarsis intermediis articulo apicali, tibiis tarsisque posticis nigris; coxis trochanteribusque posticis fusco-ferrugineis; femoribus posticis basi nigris, apice fusco-testaceis; alis fusco-hyalinis.

Long. 9 mm.

♀. Front shining, almost smooth; eyes very large, very distinctly emarginate near the base of the antennæ; posterior ocelli almost touching the eyes, situated very close to the hind margin of the head. Pronotum with a straight erect spine which does not reach the level of the mesonotum; parapsidal furrows well defined. Median segment rather indistinctly rugulose, with distinct lateral carinæ and a stout blunt spine on each side at the apical angles, the median third of the segment forming an area separated from the rest by a curved longitudinal carina on each side. Dorsal surface of the abdomen coarsely longitudinally striated; each segment with a low longitudinal carina in the middle, which is not produced into a spine on the third or fourth segments, both of which have a stout but rather short spine at the apical angles; fifth tergite very broad at the apex, produced into a long acute spine in the middle of the apical margin. Second abscissa of the radius not quite as long as the first transverse cubital nervure, but a little longer than the second.

*Hab.* North Queensland, Kuranda (Turner), July 1913.

Easily distinguished from *curvispina*, Cam., *luzonensis*, Enderl., and other Malayan species with somewhat similar colouring by the very large emarginate eyes and by the shorter and straight spine of the pronotum, also by the shorter second cubital cell. The second tergite is twice as broad as long.

Genus *MESOBRACON*, Szép.

*Mesobracon*, Szép. Termes. Füzetek, xxv. p. 46 (1902).

*Telerda*, Cam. Ann. S. Afric. Mus. v. p. 75 (1906).

*Mesobracon maculiceps*, Cam.

*Telerda maculiceps*, Cam. Ann. S. Afric. Mus. v. p. 75 (1906).

*Mesobracon concolor*, Szép. Ann. Mus. Nat. Hungar. iv. p. 579 (1906) (Dec. 25).

The localities in the British Museum range from Mombasa to Salisbury.

Subfamily *DORYCTINÆ*.

Genus *TRICHOBRACON*, Cam.

*Trichobracon*, Cam. Journ. Straits Br. Roy. Asiat. Soc. xlv. p. 104 (1905).

*Trichodoryctes*, Szép. Ann. Mus. Nat. Hungar. iv. p. 599 (1906).

*Trichobracon striolatus*, Szép.

*Acanthobracon striolatus*, Szép. Termes. Füzetek. xxv. p. 48 (1902).

*Trichobracon pilosus*, Cam. Journ. Straits Br. Roy. Asiat. Soc. xlv. p. 104 (1905).

*Neotrimorus luteus*, Cam. Ann. & Mag. Nat. Hist. (7) xvi. p. 161 (1905).

Subfamily *CHELONINÆ*.

*Spheropyx conjugator*, sp. n.

♀. Nigra; abdomine rufo-ferrugineo; mandibulis apice testaceis; femoribus anticis, tibiis anticis, tarsisque anticis basi extremo rufo-testaceis; alis dimidio basali hyalinis, dimidio apicali fuscis, venis nigris.

Long. 8 mm.

♀. Clypeus short and broad, shining and finely punctured; front finely punctured, with a longitudinal groove on each side nearly reaching the base of the antennæ; vertex smooth and shining, the head widely emarginate posteriorly, the ocellar region somewhat raised. Second joint of the flagellum very distinctly longer than the third, the first very short and almost concealed in the apex of the scape, length

of the antennæ 8 mm. Thorax smooth and shining, the scutellum finely punctured, the basal half of the scutellum occupied by a deep depression in which are three longitudinal carinæ, the apex and sides of the scutellum strongly longitudinally striated. Median segment smooth at the base, coarsely rugose-striate at the apex. Abdomen longitudinally rugose-striate, with only three visible tergites; second tergite with a distinct longitudinal carina; the first broader at the apex than long, not much narrowed to the base; the second a little shorter than the first, twice as broad at the apex as long; the third very little longer than the second, without teeth at the apex beneath. Recurrent nervure received before the first transverse cubital nervure.

*Hab.* S.W. Australia, Yallingup (*Turner*), November and December; three specimens.

The tergites are less strongly curved downwards both laterally and apically than in the European *S. irrorator*, from which it also differs in the absence of apical spines and in the broader and less elongate abdomen. It approaches the North-American *S. bicolor* much more closely in these points, but is a larger and more robust species. The colour of the fore femora and tarsi seems to vary, one specimen having the femora black and two having the tarsi except the apical joint testaceous red.

*Sphæropyx neavei*, sp. n.

♀. Nigra; palpis, mandibulis apice, abdomine, pedibus tegulisque rufo-testaceis: femoribus posticis apice, tibiis posticis apice, tarsisque posticis, basi extremo excepto, nigris; alis venisque fuscis.

Long. 7 mm.

♀. Front and clypeus closely punctured and sparsely clothed with fuscous pubescence; vertex and thorax shining, finely punctured; a broad transverse groove at the base of the scutellum divided by a longitudinal carina; median segment punctured-rugose, the sides rugose-striate. Abdomen rugose; the first segment with two longitudinal carinæ converging at the apex, a little longer than the apical breadth, half as broad again at the apex as at the base; second tergite a little longer than the first, not as long as the apical breadth; third tergite no longer than the second, without apical teeth. Recurrent nervure received before the first transverse cubital nervure.

*Hab.* N.E. Rhodesia, Serenje District, 4500 feet (*S. A. Neave*), December.

A smaller and less robust species than the last, but agreeing with it in the absence of apical abdominal spines.

*Phanerotoma nova-guineensis*, Szép.

*Phanerotoma nova-guineensis*, Szép. Termes. Füzetek, xxiii. p. 59 (1900). ♀.

A single specimen from Mackay, Queensland, taken in August 1900, answers well to the brief description of this species.

*Phanerotoma leeuwinensis*, sp. n.

♂. Brunneo-ochraceus; mesonoto lateribus, mesopleuris, segmento mediano, segmentisque dorsalibus lateribus nigris; segmento dorsali tertio fusco, pedibus pallide testaceis; tibiis posticis basi albidis apice pallide brunneis; alis hyalinis, venis fuscis.

Long. 2.5 mm.

♂. Antennæ 23-jointed, a little longer than the insect; the whole surface finely granulate, clothed on the head and thorax with very short and delicate white pubescence; sutures between the tergites finely crenulated, the third tergite distinctly longer than the second. Recurrent nerve interstitial with the first transverse cubital nervure; first abscissa of the radius as long as the second, but distinctly shorter than the second transverse cubital nervure. Median segment without a carina. Posterior ocelli a little further from the hind margin of the head than from each other.

*Hab.* S.W. Australia, Yallingup (*Turner*), November 1913.

Easily distinguished from *nova-guineensis* by the very different shape of the second cubital cell; in that species, as in most of the species of the genus, the second abscissa of the radius is much longer than the second transverse cubital nervure. The colour is probably variable as to the extent of the dark markings.

XXVII.—*The Genera of Hapalidæ (Marmozets).*

By R. I. POCKOCK, F.R.S.

*Introduction.*

MANY attempts have been made in the past to classify the marmozets generically, notably by Wagner, Lesson, Reichenbach, and Gray; but the distinctive characters employed have appealed so little to the judgment of modern zoologists